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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/758,364

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Shen-Hong Chou

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EXAMINER

LOVELL, LEAH S

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/758,364	Applicant(s) CHOU ET AL.
	Examiner LEAH S. LOVELL	Art Unit 2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,10 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9,10 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 September 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 9, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Unger (US 6,164,789).

Regarding claim 1, Unger discloses an illumination device for display systems comprising:

a circuit board [40; column 2, lines 25-39];

a plurality of light sources [30; figures 1 and 3];

at least one light diffusing plate optically coupled to the plurality of light sources and having a light incidence area for receiving light from the plurality of light sources, wherein the plurality of light sources are distributed in a plane over an area is greater than the light incidence area of the at least one light-diffusing plate; and

a device case [210] enclosing the plurality of light sources [figure 8; wherein, by definition, 'enclose' means 'to surround' and it is clear in figure 8 that the device case 210 surrounds the light sources 30 on the front side], wherein the device case [210]

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comprises a plurality of sidewalls [216] having an inner surface configured to reflect light from the plurality of light sources [30] [figure 8; column 4, lines 47-65], wherein each sidewall of the device case and the circuit board form an angle in the range of about 60 degrees to less than 90 degrees.

However, Unger does not disclose a diffusing plate, but does disclose an adhesive layer positioned between the device case [210] and the light guide plate [220]. It would have been obvious to one of ordinary skill in the art at the time of the invention to try a diffusion plate instead of an ordinary adhesion plate in an attempt to improve the function of the backlight, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, one would have been motivated to do so because using a diffusion plate in place of the ordinary adhesion layer leads to a more even light distribution which is a desired output. *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007). Furthermore, Unger does disclose the incidence area being larger than the diffusion plate [figure 8].

In regard to claim 2, Unger, as modified above, discloses:

the display system comprises a display panel having a display area for displaying images, wherein

the display panel is optically coupled to the at least one light-diffusing plate [column 6, lines 13-18]; and

light incidence area of the at least one light-diffusing plate corresponds to the display area [it is clear that the display panel would be positioned like the light guide plate 220, figure 8, above the light guide plate and the light incidence area of the light diffusion plate 'corresponds' to the display area as light from the diffusion plate exits the display panel].

Regarding claim 3, Unger, as modified, discloses the claimed invention as indicated above.

However, Unger does not disclose:

the display area has a width 'A' and a length 'B';

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each one of the plurality of light sources is separated from adjacent light sources by a pitch 'G'; and

the area S is confined to the range defined by $(A+G) \times (B+G) \leq S \leq (A+3G) \times (B+3G)$.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to change the size of the device to meet these limitations, since it has been held by the courts that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). One would have been motivated to do so because the relative size of the device would result in a desired light output.

Regarding claim 4, Unger discloses the display panel is a liquid crystal display panel [column 6, lines 14-19; Unger indicates the light panels use in computers, and it is clear to those in the art that computers utilize light panels, like the device of Unger, to light liquid crystal display panels].

In regard to claim 5, Unger discloses the plurality of light sources [30] are light emitting diodes [column 2, lines 3-4].

In regard to claim 6, Unger discloses the plurality of light sources are distributed in an array [figures 1 and 3].

In regard to claim 9, Unger discloses the claimed invention as indicated above. However, Unger does not disclose a portion of at least one of the plurality of sidewalls is curved. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a portion of the sidewalls be curved, since it has been held by the courts that a change in shape or configuration, without any criticality in operation of the device, is nothing more than one of numerous shapes that one of ordinary skill in the art will find obvious to provide based on the suitability for the intended final application. See *In re Dailey*, 149 USPQ 47 (CCPA 1976). One would have been motivated to do so because it appears that the disclosed device would perform equally well with sidewalls shaped as curves.

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Regarding claim 10, Unger discloses the invention as indicated above. However, Unger does not disclose the inner surface of at least one of the plurality of sidewalls is configured to scatter light within the device case. It would have been obvious to one of ordinary skill in the art at the time of the invention to try sidewalls which scatter light in addition to only reflecting light in an attempt to improve the function and desirability of the lighting device of Unger, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, one would have been motivated to do so because a scattering pattern on the sidewalls would further diffuse light which assist in achieving the overall goal of even brightness. *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

Regarding claim 14, Unger, as modified, discloses the claimed invention as indicated above. However, Unger does not disclose:

the at least one side of the display area that is substantially parallel to the at least one side edge surface of the light guide plate has a length 'B';

each one of the plurality of light sources is separated from the adjacent light sources by a pitch 'G'; and

the length 'M' is confined to the range defined by $(B+G) \leq M \leq (B+3G)$.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to change the size of the device to meet these limitations, since it has been held by the courts that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). One would have been motivated to do so because the relative size of the device would result in a desired light output.

Response to Arguments

4. Applicant's arguments with respect to claims 1-6, 9, 10 and 14 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEAH S. LOVELL whose telephone number is (571)272-2719. The examiner can normally be reached on Monday through Friday 8 a.m. until 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on (571) 272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leah Lovell
Examiner, AU 2885
24 November 2008

/Jong-Suk (James) Lee/
Supervisory Patent Examiner
Art Unit 2885